

shardna.ST25.4.15.05.txt
SEQUENCE LISTING

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<120> Diagnostic and therapeutic means for kidney stone related pathologies

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<170> PatentIn version 3.1.

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shardna.ST25.4.15.05.txt

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shardna.ST25.4.15.05.txt

<212> PRT

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Phe Glu Asn Val Ala Val Cys Leu Pro Leu Arg Cys Pro Arg Cys Gly
20 25 30

Asp His Thr Arg Phe Arg Ser Leu Ser Ser Leu Arg Ala His Leu Glu
35 40 45

Phe Ser His Ser Tyr Glu Glu Arg Thr Leu Leu Thr Lys Cys Ser Leu
50 55 60

Phe Pro Ser Leu Lys Asp Thr Asp Leu Val Thr Ser Ser Glu Leu Leu
65 70 75 80

Lys Pro Gly Lys Leu Gln Ser Ser Gly Asn Val Val Lys Gln Lys Pro
85 90 95

Ser Tyr Val Asn Leu Tyr Ser Ile Ser His Glu His Ser Lys Asp Arg
100 105 110

Lys Pro Phe Glu Val Val Ala Glu Arg Pro Val Ser Tyr Val Gln Thr
115 120 125

Tyr Thr Ala Met Asp Leu His Ala Asp Ser Leu Asp Gly Thr Arg Ser
130 135 140

Gly Pro Gly Leu Pro Thr Ser Asp Thr Lys Ala Ser Phe Glu Ala His
145 150 155 160

Val Arg Glu Lys Phe Asn Arg Met Val Glu Ala Val Asp Arg Thr Ile
165 170 175

Glu Lys Arg Ile Asp Lys Leu Thr Lys Glu Leu Ala Gln Lys Thr Ala
180 185 190

Glu Leu Leu Glu Val Arg Ala Ala Phe Val Gln Leu Thr Gln Lys Lys
195 200 205

Gln Glu Val Gln Arg Arg Glu Arg Ala Leu Asn Arg Gln Val Asp Val
210 215 220

shardna.ST25.4.15.05.txt

Ala Val Glu Met Ile Ala Val Leu Arg Gln Arg Leu Thr Glu Ser Glu
225 230 235 240

Glu Glu Leu Leu Arg Lys Glu Glu Glu Val Val Thr Phe Asn His Phe
245 250 255

Leu Glu Ala Ala Ala Glu Lys Glu Val Gln Gly Lys Ala Arg Leu Gln
260 265 270

Asp Phe Ile Glu Asn Leu Leu Gln Arg Val Glu Leu Ala Glu Lys Gln
275 280 285

Leu Glu Tyr Tyr Gln Ser Gln Gln Ala Ser Gly Phe Val Arg Asp Leu
290 295 300

Ser Gly His Val Leu Thr Asp Ile Ser Ser Asn Arg Lys Pro Lys Cys
305 310 315 320

Leu Ser Arg Gly His Pro His Ser Val Cys Asn His Pro Asp Leu Lys
325 330 335

Ser His Phe His Pro Lys Gly Arg Asn His Leu Lys Lys Ala Lys Asp
340 345 350

Asp Arg Ala Ser Met Gln Pro Ala Lys Ala Ile His Glu Gln Ala Glu
355 360 365

Ser Ser Arg Asp Leu Cys Arg Pro Pro Lys Lys Gly Glu Leu Leu Gly
370 375 380

Phe Gly Arg Lys Gly Asn Ile Arg Pro Lys Met Ala Lys Lys Lys Pro
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Thr Ala Ile Val Asn Ile Ile
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<210> 34

<211> 333

<212> PRT

<213> Homo sapiens

<400> 34

Met Gln Gln Lys Ala Phe Glu Glu Ser Arg Tyr Pro Trp Gln Glu Ser
1 5 10 15

shardna.ST25.4.15.05.txt

Phe Glu Asn Val Ala Val Cys Leu Pro Leu Arg Cys Pro Arg Cys Gly
20 25 30

Asp His Thr Arg Phe Arg Ser Leu Ser Ser Leu Arg Ala His Leu Glu
35 40 45

Phe Ser His Ser Tyr Glu Glu Arg Thr Leu Leu Thr Lys Cys Ser Leu
50 55 60

Phe Pro Ser Leu Lys Asp Thr Asp Leu Val Thr Ser Ser Glu Leu Leu
65 70 75 80

Lys Pro Gly Lys Leu Gln Ser Ser Gly Asn Val Val Lys Gln Lys Pro
85 90 95

Ser Tyr Val Asn Leu Tyr Ser Ile Ser His Glu His Ser Lys Asp Arg
100 105 110

Lys Pro Phe Glu Val Val Ala Glu Arg Pro Val Ser Tyr Val Gln Thr
115 120 125

Tyr Thr Ala Met Asp Leu His Ala Asp Ser Leu Asp Gly Thr Arg Ser
130 135 140

Gly Pro Gly Leu Pro Thr Ser Asp Thr Lys Ala Ser Phe Glu Ala His
145 150 155 160

Val Arg Glu Lys Phe Asn Arg Met Val Glu Ala Val Asp Arg Thr Ile
165 170 175

Glu Lys Arg Ile Asp Lys Leu Thr Lys Glu Leu Ala Gln Lys Thr Ala
180 185 190

Glu Leu Leu Glu Val Arg Ala Ala Phe Val Gln Leu Thr Gln Lys Lys
195 200 205

Gln Glu Val Gln Arg Arg Glu Arg Ala Leu Asn Arg Gln Val Asp Val
210 215 220

Ala Val Glu Met Ile Ala Val Leu Arg Gln Arg Leu Thr Glu Ser Glu
225 230 235 240

Glu Glu Leu Leu Arg Lys Glu Glu Glu Val Val Thr Phe Asn His Phe
245 250 255

Leu Glu Ala Ala Ala Glu Lys Glu Val Gln Gly Lys Ala Arg Leu Gln

shardna.ST25.4.15.05.txt
260 265 270

Asp Phe Ile Glu Asn Leu Leu Gln Arg Val Glu Leu Ala Glu Lys Gln
275 280 285

Leu Glu Tyr Tyr Gln Ser Gln Gln Ala Ser Gly Phe Val Arg Asp Leu
290 295 300

Ser Gly His Val Ser Trp Lys Gly Ala Gly Glu Ala Arg Leu Val Cys
305 310 315 320

Gln Asn Asp Leu Glu Leu Glu Glu Ser Ala Ile Val Glu
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<210> 35

<211> 462

<212> PRT

<213> Homo sapiens

<400> 35

Met Gln Gln Lys Ala Phe Glu Glu Ser Arg Tyr Pro Trp Gln Glu Ser
1 5 10 15

Phe Glu Asn Val Ala Val Cys Leu Pro Leu Arg Cys Pro Arg Cys Gly
20 25 30

Asp His Thr Arg Phe Arg Ser Leu Ser Ser Leu Arg Ala His Leu Glu
35 40 45

Phe Ser His Ser Tyr Glu Glu Arg Thr Leu Leu Thr Lys Cys Ser Leu
50 55 60

Phe Pro Ser Leu Lys Asp Thr Asp Leu Val Thr Ser Ser Glu Leu Leu
65 70 75 80

Lys Pro Gly Lys Leu Gln Ser Ser Gly Asn Val Val Lys Gln Lys Pro
85 90 95

Ser Tyr Val Asn Leu Tyr Ser Ile Ser His Glu His Ser Lys Asp Arg
100 105 110

Lys Pro Phe Glu Val Val Ala Glu Arg Pro Val Ser Tyr Val Gln Thr
115 120 125

shardna.ST25.4.15.05.txt

Tyr Thr Ala Met Asp Leu His Ala Asp Ser Leu Asp Gly Thr Arg Ser
130 135 140

Gly Pro Gly Leu Pro Thr Ser Asp Thr Lys Ala Ser Phe Glu Ala His
145 150 155 160

Val Arg Glu Lys Phe Asn Arg Met Val Glu Ala Val Asp Arg Thr Ile
165 170 175

Glu Lys Arg Ile Asp Lys Leu Thr Lys Glu Leu Ala Gln Lys Thr Ala
180 185 190

Glu Leu Leu Glu Val Arg Ala Ala Phe Val Gln Leu Thr Gln Lys Lys
195 200 205

Gln Glu Val Gln Arg Arg Glu Arg Ala Leu Asn Arg Gln Val Asp Val
210 215 220

Ala Val Glu Met Ile Ala Val Leu Arg Gln Arg Leu Thr Glu Ser Glu
225 230 235 240

Glu Glu Leu Leu Arg Lys Glu Glu Glu Val Val Thr Phe Asn His Phe
245 250 255

Leu Glu Ala Ala Glu Lys Glu Val Gln Gly Lys Ala Arg Leu Gln
260 265 270

Asp Phe Ile Glu Asn Leu Leu Gln Arg Val Glu Leu Ala Glu Lys Gln
275 280 285

Leu Glu Tyr Tyr Gln Ser Gln Gln Ala Ser Gly Phe Val Arg Asp Leu
290 295 300

Ser Gly His Val Ser Trp Lys Gly Ala Gly Glu Ala Arg Leu Val Cys
305 310 315 320

Gln Asn Asp Leu Glu Leu Glu Ile Phe Gly His Ile Asn His His Leu
325 330 335

Ser Gly Leu Lys Asp Ser His Cys Leu Val Phe Leu Gln Ala Pro Pro
340 345 350

Val Pro Trp Ile Ile Leu Ala Ser Phe Leu Trp Ile Leu Gly Asn Pro
355 360 365

Trp Thr Ser Ser Thr Ala Thr Ala Gly Phe Ser Gln Ile Trp Val Leu
370 375 380

shardna.ST25.4.15.05.txt

Phe Pro Phe Cys Gly Gly Thr Phe His His Asn Glu Lys Asp Val Leu
385 390 395 400

Gly Leu Gln Asp Phe Glu Arg Glu Ser Val Ser Thr Ser Gln Ser Arg
405 410 415

Asn Ile Ser Leu Leu Thr Leu Gly Gln Leu Gln Asn Cys Val Ile Gly
420 425 430

Lys Leu Thr Ile Ile Asp Leu Leu Thr Glu His Leu Leu Gly Val Arg
435 440 445

His Gly Val Ile Cys Phe Pro Trp Gly Leu Pro Ser Ser Ser
450 455 460

<210> 36

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<212> PRT

<213> Homo sapiens

<400> 36

Met Ser Ala Leu Gly Gln Ile Thr Ile Thr Val Ser Arg Cys Trp Asn
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Thr Glu Arg Asn Gln Thr Asp Lys Asn Pro Cys Leu His Gly Ala Tyr
20 25 30

Leu Gln Leu Arg Glu Thr Val Lys Asn Lys Ser Thr His Leu Lys Lys
35 40 45

Pro Leu Met Lys Gln Ala Pro Pro Trp Lys Asp His Leu Ala Phe Gln
50 55 60

Pro Leu His Pro Ala Glu Arg Lys Thr Gln Val Trp Arg Trp Gln Ser
65 70 75 80

Gly Asn Ser Ser Asp Leu Glu Thr Thr Ser Ser Ala Ser Pro Trp Pro
85 90 95

Thr Gly Ser Asn Arg Asp Val Val Leu Asn Thr Leu Ala Glu Ser Cys
100 105 110

Cys Gly Leu Ser Glu Leu Ile Thr Ala Pro Pro Tyr Ala Gly Val Ser
115 120 125

shardna.ST25.4.15.05.txt

Ile Gln Gly Phe Ser Gln Ile Trp Val Leu Phe Pro Phe Cys Gly Gly
130 135 140

Thr Phe His His Asn Glu Lys Asp Val Leu Gly Leu Gln Asp Phe Glu
145 150 155 160

Arg Glu Ser Val Ser Thr Ser Gln Ser Arg Asn Ile Ser Leu Leu Thr
165 170 175

Leu Gly Gln Leu Gln Asn Cys Val Ile Gly Lys Leu Thr Ile Ile Asp
180 185 190

Leu Leu Thr Glu His Leu Leu Gly Val Arg His Gly Val Ile Cys Phe
195 200 205

Pro Trp Gly Leu Pro Ser Ser Ser
210 215